



# PROTENG<sup>TM</sup>

## SPAIN

PROTECT YOUR ASSETS, PROTECT YOUR LIFE!









**PROTENG** is an automatic autonomous fire extinguishing device that serves to protect enclosed spaces

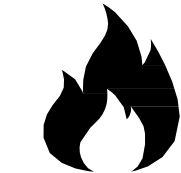


## **PROTENG PRESENTATION**

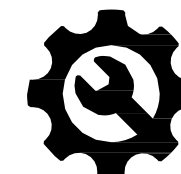
We will provide professional presentation of **all PROTENG products**.



## **CONSULTING IN FIRE SAFETY**



## **PLANNING FIRE SAFETY**



## **REGULAR SERVICE**

If necessary, we provide service of all PROTENG products.



## **SALES SUPPORT**

We help our business partners to support sales in the area.



# PRODUCTS



**PROTENG 100/HD100**



**PROTENG 250/HD250**



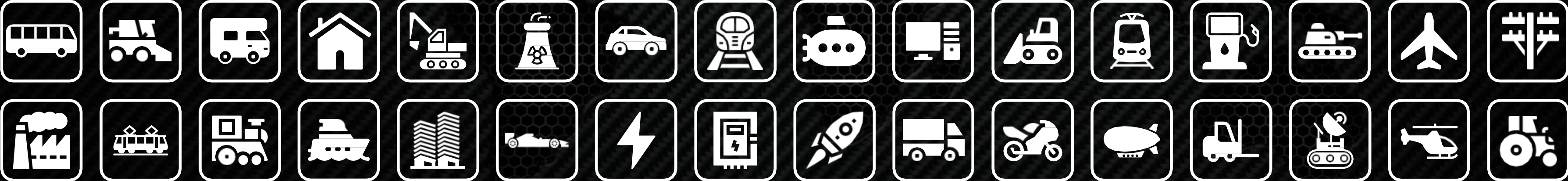
**PROTENG 500/HD500**



**PROTENG 1000/HD1000**



## USE OF PROTENG PRODUCTS





# TECHNICAL PARAMETERS



Product	PROTENG 100	PROTENG HD100	PROTENG 250	PROTENG HD250
<b>Polyamide hose</b>	Diameter 18mm	Diameter 18mm	Diameter 18mm	Diameter 18mm
<b>Extinguishing volume</b>	100g/cca 0,25m <sup>3</sup>	100g/cca 0,5m <sup>3</sup>	250g/cca 0,5m <sup>3</sup>	250g/cca 0,5m <sup>3</sup>
<b>Hose length</b>	450mm	600mm	1 100mm	1 250mm
<b>Extinguishing agent</b>	Heptafluoropropan (FM-200)	Heptafluoropropan (FM-200)	Heptafluoropropan (FM-200)	Heptafluoropropan (FM-200)
<b>Starting the system</b>	At a temperature above 90°C	At a temperature above 100°C	At a temperature above 100°C	At a temperature above 100°C

Product	PROTENG 500	PROTENG HD500	PROTENG 1000	PROTENG HD1000
<b>Polyamide hose</b>	Diameter 18mm	Diameter 18mm	Diameter 18mm	Diameter 18mm
<b>Extinguishing volume</b>	500 g/cca 1m <sup>3</sup>	500 g/cca 1m <sup>3</sup>	1 000 g/cca 2m <sup>3</sup>	1 000 g/cca 2m <sup>3</sup>
<b>Hose length</b>	2 100mm	2 450mm	4 100mm	4 900mm
<b>Extinguishing agent</b>	Heptafluoropropan (FM-200)	Heptafluoropropan (FM-200)	Heptafluoropropan (FM-200)	Heptafluoropropan (FM-200)
<b>Starting the system</b>	At a temperature above 90°C	At a temperature above 100°C	At a temperature above 90°C	At a temperature above 100°C





## EXTINGUISHING EFFECT

- ✓ Cooling space
- ✓ Displacement of oxygen from space
- ✓ Stopping the free development of fire
- ✓ Extinguishing process is not toxic
- ✓ The system works fully automatically without operator
- ✓ No side effects



-ISO9001:2016  
-ISO14001:2016  
-ISO45001:2019  
-AQAP2110:2016



-27MD S-01802



-Č.k. Z489/2020



SAI GLOBAL

-AS5062:2016Standard



-2017-Efectis-R000223



-BM OKF350000/11645-1/20217



UL Recognized Component

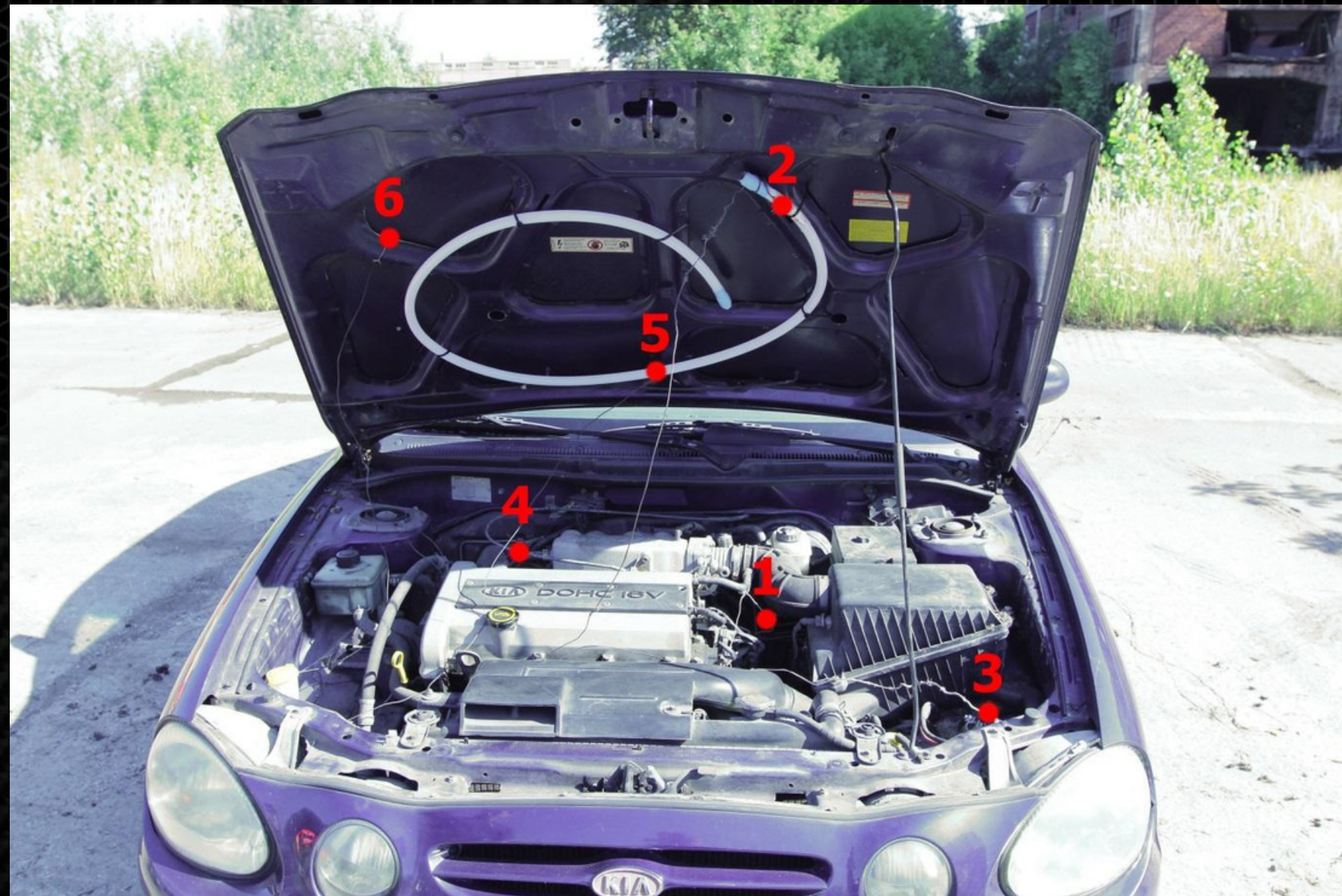
-GARZ2.EX5036





## Location of thermocouples

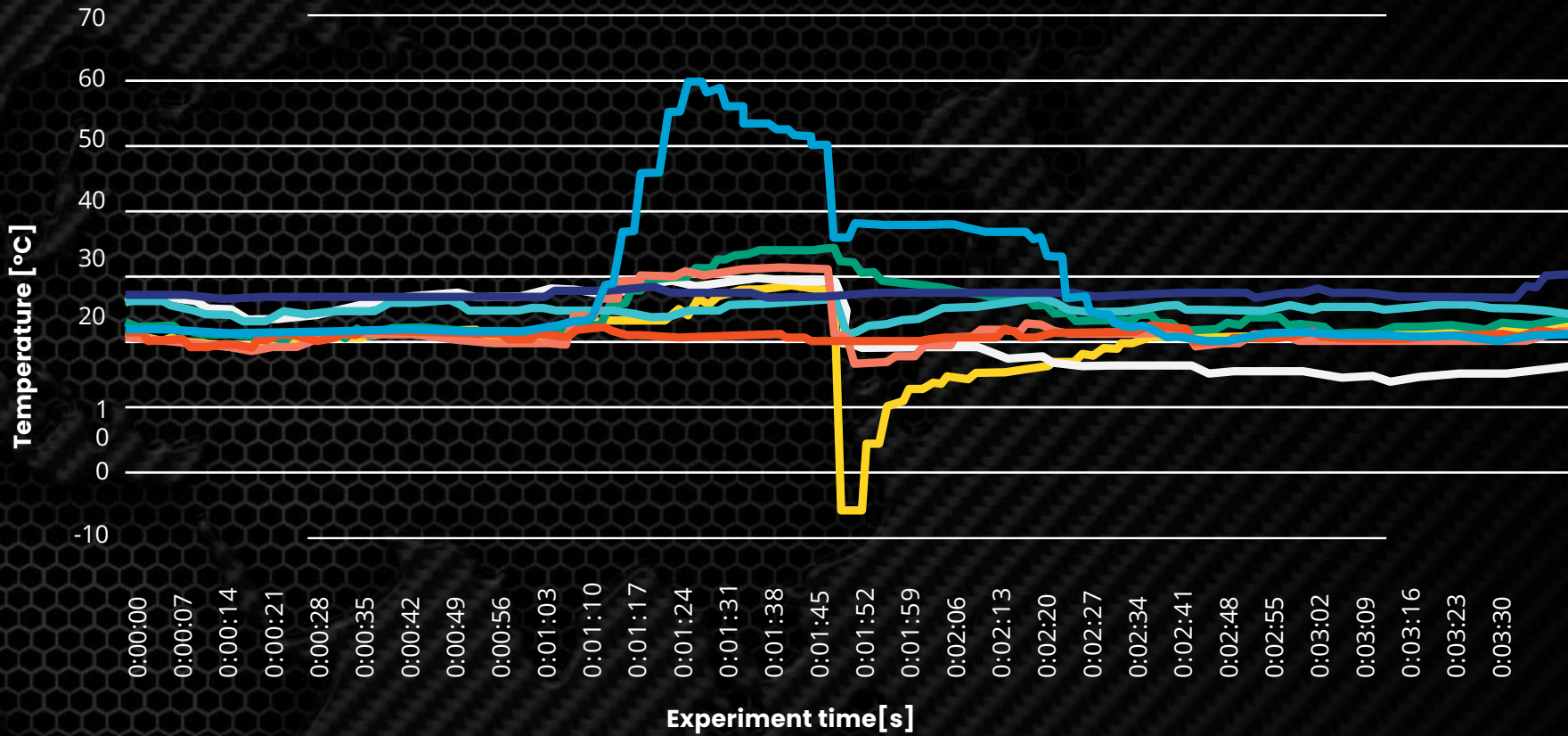
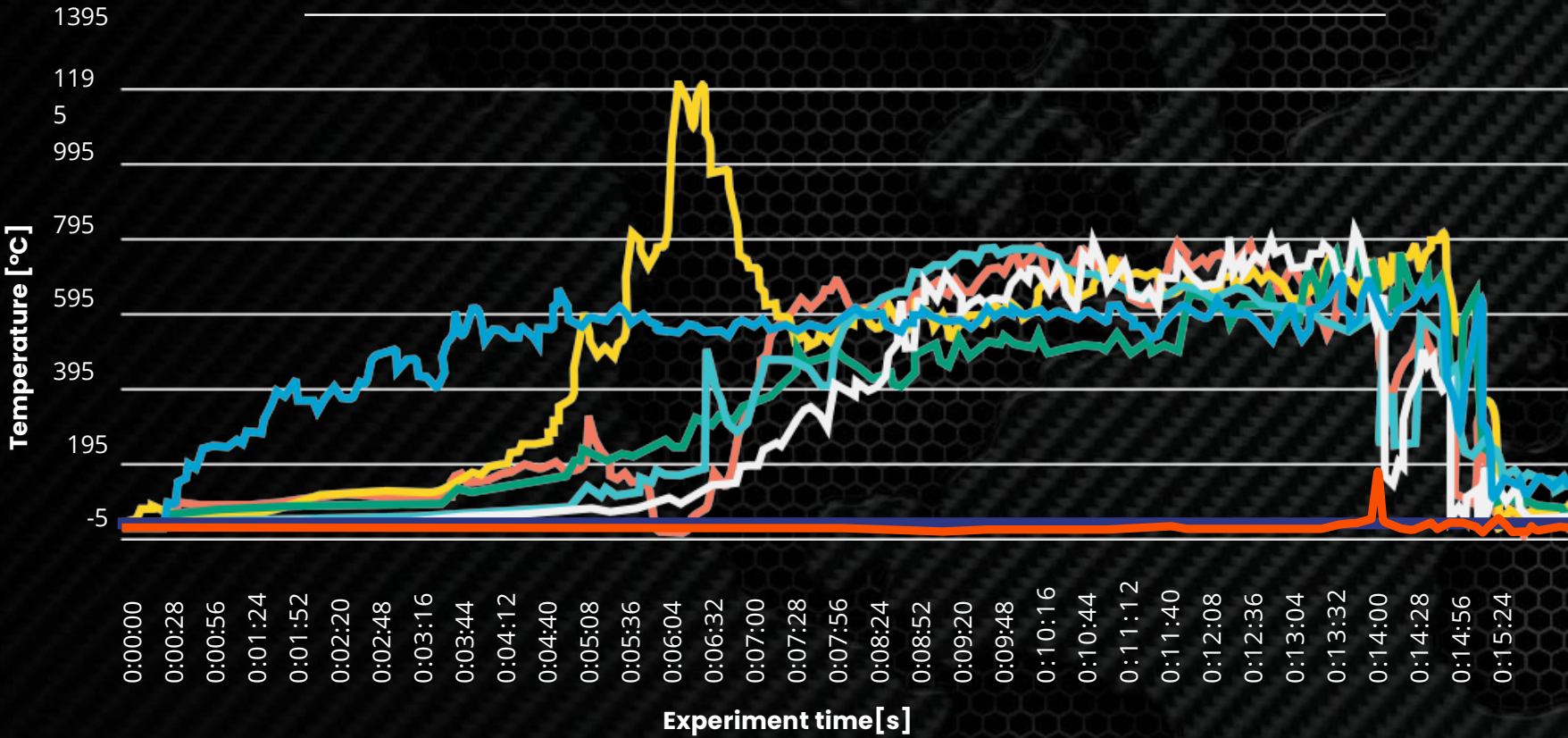
When testing the fire extinguishing system, you can see the location of individual **PROTENG 500 thermocouples** in the figure below







## Visual display of the difference in case of fire

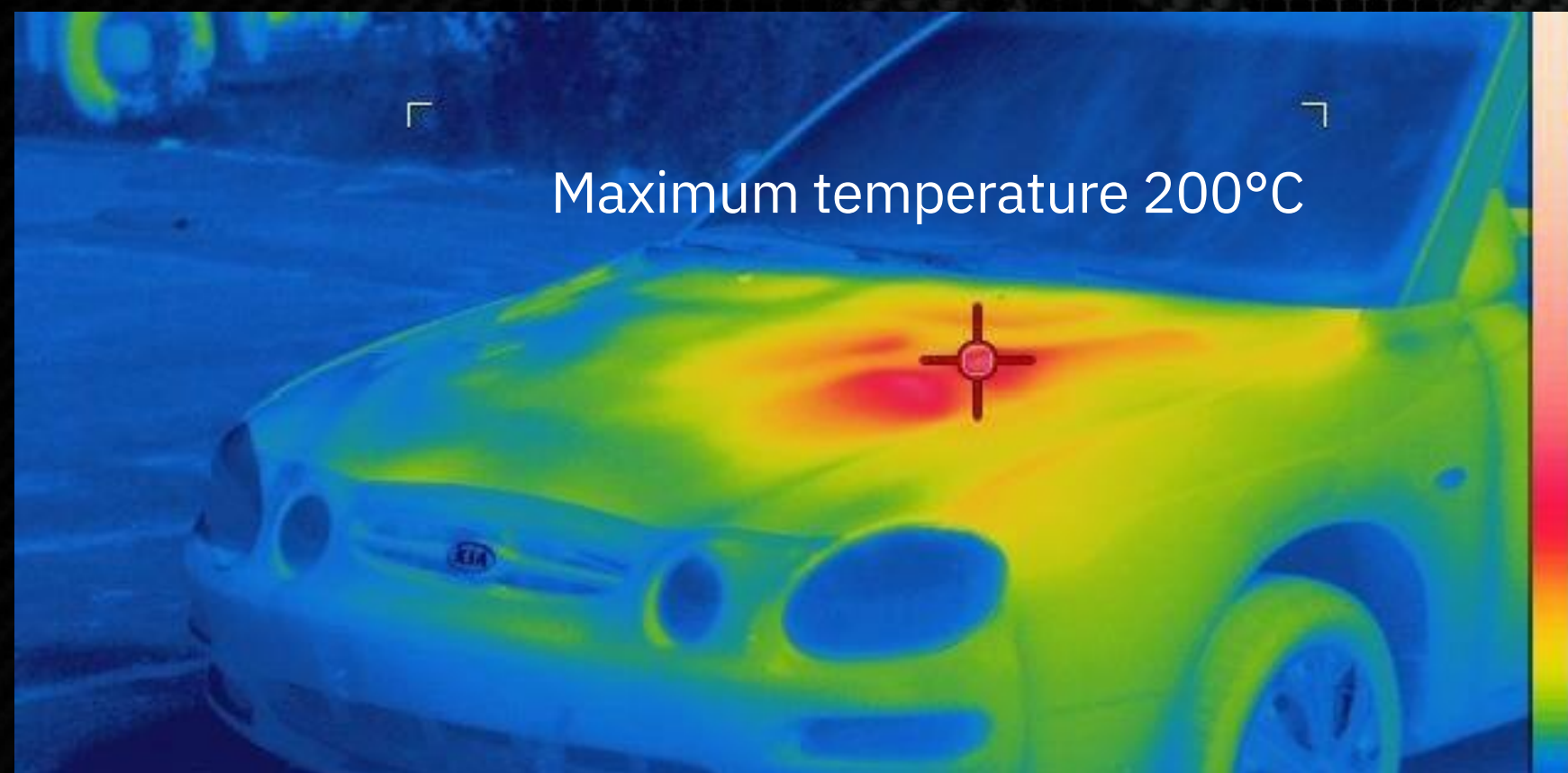


**FIRE NOT PROTECTED BY EXTINGUISHING SYSTEM**

**FIRE PROTECTED BY EXTINGUISHING SYSTEM**

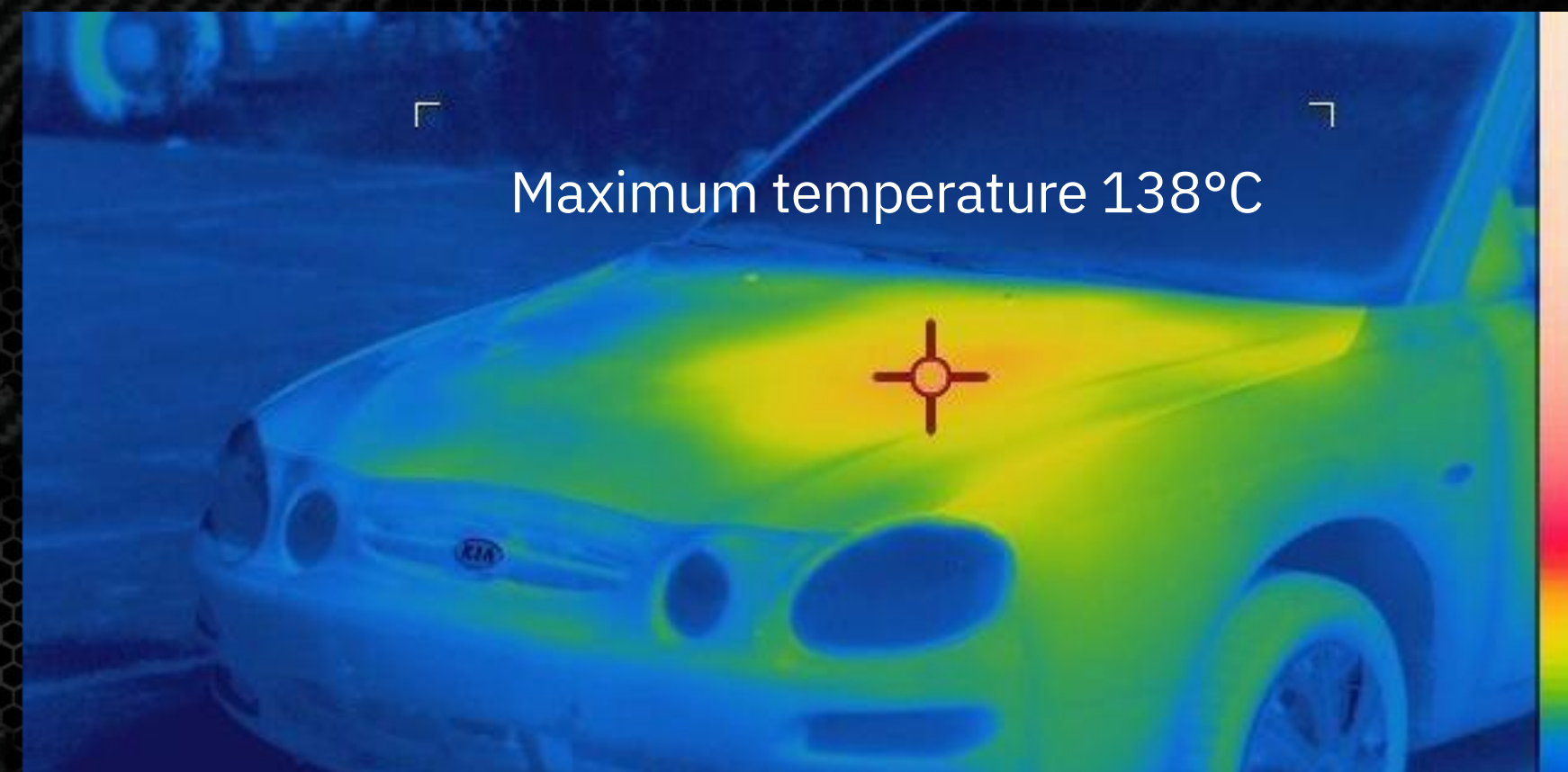


## The view of thermal camera



**ACTIVATION OF THE EXTINGUISHING SYSTEM**

- Testing of product PROTENG 500
- When the system is activated, the fire temperature reaches a maximum of 200 °C
- This is followed by cooling of the space and extinguishing the fire

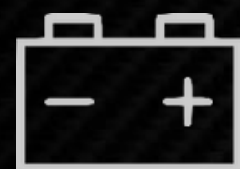


**FIRE FIGHTING BY FIRE EXTINGUISHING SYSTEM**

- After extinguishing, the maximum of the space temperature is 138°C
- No toxic waste is produced during firefighting
- The area can be checked immediately



**TSSPROTENG 01** is an additional information module for **PROTENG** fire extinguisher device, which informs the driver in the event of a fire via an LED and acoustically.



The device is powered by the battery in the vehicle.

Functionality check - each time the vehicle is started, modul informs the driver about the functionality.



In the event of a fire, the module informs the driver visually with a flashing LED



and acoustic signaling by a continuous beep.

The fire alarm can be deactivated manually until the next start of vehicle.



**TSSPROTENG 02** is an additional GPS monitoring system for the **PROTENG** fire extinguisher device. In the event of a fire, it notifies users via a mobile application and is equipped with its own battery.



The device does not need external power, it is powered only by the internal battery.

Low battery alert – the device automatically sends information.

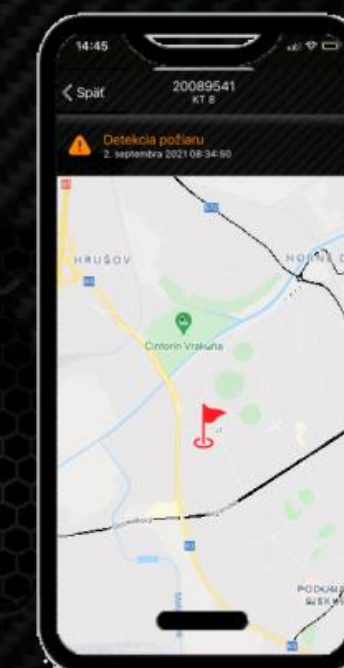
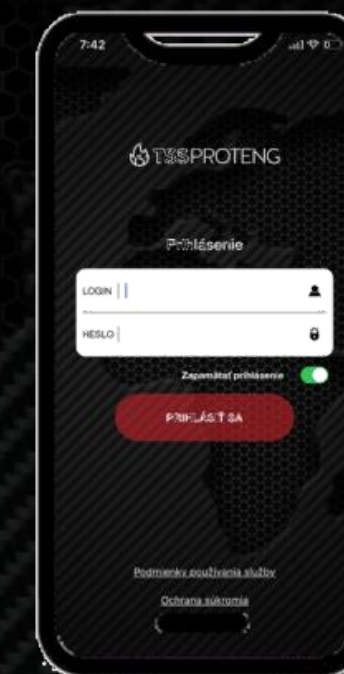


The module sends the current position at regular 24-hour intervals, when it wakes up only for a moment, sends the position to the server and goes back to sleep mode, thus saving battery power.

Automatic function check – the server notifies the user in case of loss of connection with the module.



The device does not require professional installation.





**TSSPROTENG 03** is an online monitoring system for **PROTENG** fire extinguisher device, which informs in the event of a fire via a mobile application or directly non-stop dispatching.



## TSSPROTENG CLASSIC

- Immediate information about fire
- Immediate information about signal lost
- Communication via mobile application

## TSSPROTENG CLASSICPRO

- Immediate information about fire
- Immediate information about signal lost
- Communication via mobile application
- System connected to non-stop dispatching

## TSSPROTENG PREMIUM

- Immediate information about fire
- Immediate information about signal lost
- Communication via mobile application and web interface
- System connected to TSSMONITORING

## TSSPROTENG PREMIUMPRO

- Immediate information about fire
- Immediate information about signal lost
- Communication via mobile application and web interface
- System connected to TSSMONITORING
- System connected to non-stop dispatching

It is possible to connect additional sensors (such as pressure, temperature, motion sensors, smoke detectors, and others) to the **TSSPROTENG** system.



# PROTENG REPRESENTATION IN THE WORLD



**CANADA**

**USA**

**SOUTH AMERICA**

**EUROPE**

*Spain,*  
Slovakia, Austria, Belgium, Czech Republic, France, Germany, Hungary, Italy, Luxemburg, Netherlands, Poland, Romania, Slovenia, Ukraine

**AFRICA**

**ASIA**

United Arab Emirates, Bahrain, Saudi Arabia, Oman, Jordan, Lebanon, Iran, Israel, Qatar, Kuwait, Iraq, Taiwan

**AUSTRALIA**

Australia, New Zealand, New Guinea

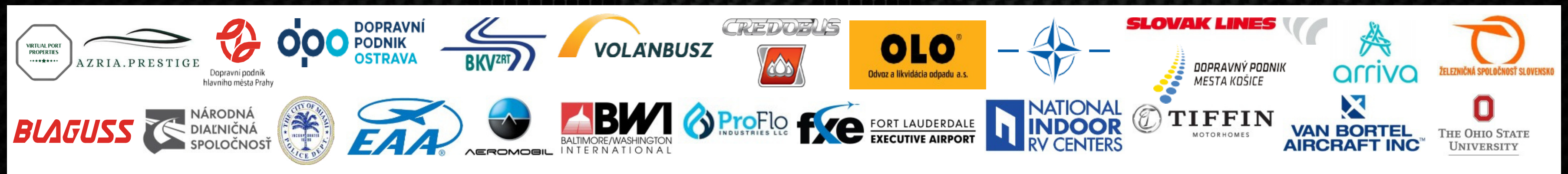


# OUR REFERENCES



- Property Management - VIRTUAL PORT PROPERTIES / ES
- Transport company - AZRIA PRESTIGE / ES
- Transport company - PRAHA, OSTRAVA / CZ
- Transport company - Budapest / HU
- Transport company - Volánbusz / HU
- Transport company - CREDO / HU
- Waste Company - OLO / SK
- ALLIANCE NATO / EU
- Transport company - Slovak Lines / SK
- Transport Company - Arriva Nitra / SK
- Railway Company - Železničná Spoločnosť Slovensko / SK
- Transport Company - Blaguss / SK
- National Highway Company - Národná Diaľničná Spoločnosť / SK

- Police Department Miami / USA
- Experimental Aircraft Association (EAA) / USA
- Aeromobil / SK
- International Airport Baltimore, Maryland / USA
- PROflo, Ohio / USA
- International Airport Fort Lauderdale Executive, Florida / USA
- National Indoor RV Center Dallas, Texas / USA
- TIFFIN Motorhomes, Alabama / USA
- Van Bortel Aircraft, Texas - Cessna aircraft / USA
- Ohio Columbus University / USA







# CONTACT DETAILS



**PROTENG**  
SPAIN

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**THANK YOU  
FOR YOUR  
ATTENTION**



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SPAIN**

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